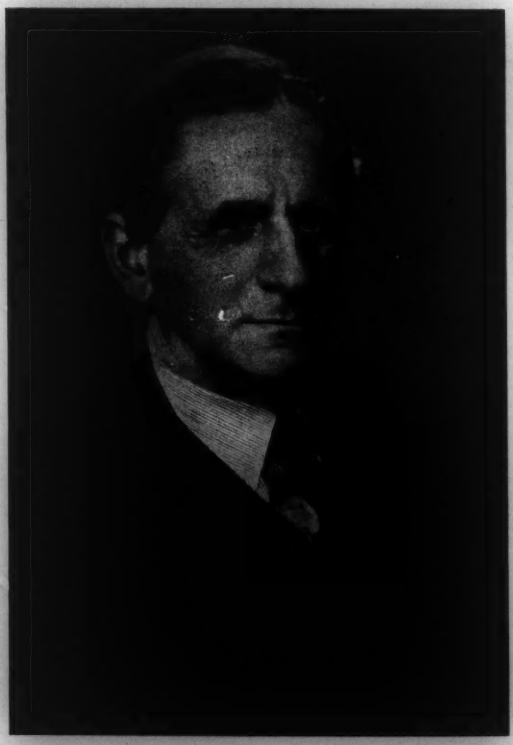
THE INSTITUTE OF PHYSICS
47, BELGRAVE SQUARE, LONDON, S.W.1

# BULLETIN

No. 8 AUGUST 1950

## PROFESSOR W. E. CURTIS, D.Sc., F.Inst.P., F.R.S.
PRESIDENT, 1950–51



Professor William Edward Curtis, President-Elect of the Institute, has been Professor of Physics in King's College, Newcastle-upon-Tyne, since 1926, and is now Sub-Rector of the College. During the recent war he was Scientific Adviser to the Ministry of Home Security until 1943, when he became Superintendent of Applied Explosives in the Armament Research Department of the Ministry of Supply at Fort Halstead.

## NOTICES TO MEMBERS

### Education and Training of Laboratory Technicians

The Institute has been represented by Dr. R. S. Clay, Mr. L. Walden and Mr. N. Clarke on the Exploratory Committee set up by the City and Guilds of London Institute to consider the possibility of framing conditions and syllabuses for courses, under the auspices of that Institution, for technicians in a wide range of scientific laboratories. As a result of the work of the Committee, the City and Guilds of London Institute has recently issued regulations and syllabuses for its Laboratory Technicians' Intermediate Certificate Examinations. It is understood that those for the final examinations will follow in due course. The Institute's representatives named above are serving on the Advisory Committee which controls the new certificate.

The Board of the Institute is satisfied that the course for the new certificate should provide an adequate training in the subjects at present required for The Institute of Physics' Certificate in Laboratory Arts, and it was glad to learn that Dr. Clay (who has been the Institute's Assessor for many years) has been asked to be the assessor for the physics laboratory techniques and to establish the appropriate standards.

It has therefore been decided by the Board that:

(i) The Institute's Certificate in Laboratory Arts will be no longer awarded after December 1951, by which date such students as have already begun a course will have had an opportunity to take the examination;

(ii) No further applications will be accepted for the award of the certificate without examination under Regulation 10.

The Institute has been assured by the City and Guilds of London Institute that holders of The Institute of Physics' Certificate will be granted exemption from the examination for the new intermediate certificate and allowed to enter, if they so wish, directly to the course for the advanced City and Guilds' Certificate which will be established in the near future. The Board feels this to be an adequate safeguard of the position of the holders of The Institute of Physics' Certificate and to be a recognition of the work which this Institute has done.

The Board wishes to acknowledge the work of those who have established and taught the courses for the Institute's Certificate and hopes that their work will be continued under the new scheme.

### Membership Regulations

When the new regulations, involving higher minimum ages for Fellowship and Associateship, were introduced in 1949 a concession was granted for one year to those who were at that time Associates or Students of the Institute. Those who may wish to take advantage of this concession to apply for transfer to Fellowship or Associateship under the regulations which were in force prior to September 1949, are reminded that such applications must be received by the Secretary not later than September 15, 1950.

### Forthcoming Conference

The Netherlands Physical Society are organizing an International Conference on Spectroscopy at Radio-frequencies, Amsterdam, from September 18–23, 1950. Further details can be obtained from Professor J. De Boer, Bunsentraat 98, Amsterdam—0.

## THE REGISTER

ELECTION TO MEMBERSHIP

*Fellows*

(*) indicates transfer from Associateship.

Calvert, William John Rawson, M.A., Ph.D., Senior Lecturer, Guy's Hospital Medical School, London.

Makinson, Kathleen Rachel, B.A., Research Officer, Commonwealth Scientific and Industrial Research Organization, Australia.

Marwick, Thora Cuthbert, M.Sc., Ph.D., U.K. Scientific Liaison Officer, British Commonwealth Scientific Office, London.

*Rudd, James Brydon, B.Sc., Deputy to Officer in charge, Research Laboratories Amalgamated Wireless (Australia) Ltd.

*Sen, Mrinal Kanti, Chief Physicist, Indian Jute Mills Association Research Institute, Calcutta, India.

*Thomas, Leslie Albert Arthur, B.Sc., Research Physicist, Research Laboratories, General Electric Co. Ltd., Wembley.

Thompson, Harold Warris, M.A., F.R.S., Lecturer and Demonstrator in Chemistry, University of Oxford.

*Associateship*

(*) indicates transfer from Student.

*Alexander, William Hector, B.Sc., Research Engineer, Ferranti Ltd., Edinburgh.

Bloomfield, George William, B.Sc., Ph.D., Lecturer in Natural Philosophy, University of Glasgow.

Brooks, Richard, B.A., Technical Assistant, Imperial Chemical Industries Ltd. (Alkali Division), Northwich.

*Brown, Lawrence, B.A., Research Physicist, Courtaulds Ltd., Coventry.

Critchlow, John, B.Sc., Senior Assistant in Physics, Burnley Municipal College.

*Cronshaw, Arnold William, B.Sc., Junior Physicist, Metropolitan-Vickers Electrical Co. Ltd., Manchester.

*Davies, David Elwyn, B.Sc., Ph.D., Demonstrator in Physics, University College of Swansea.

*Eastwood, Geoffrey Wallwork, B.Sc., Scientific Officer, Post Office Research Station, Dollis Hill.

Hall, Ronald Henry, B.Sc., Research Physicist, British Leather Manufacturers Research Association, Egham, Surrey.

*Hibberd, Francis Harold, M.Sc., Lecturer in Physics, University of Sydney.

*Hodgkinson, Ronald James, B.Sc., Physicist, Research Laboratories, General Electric Co. Ltd., Wembley.

*Jolly, Donald, B.Sc., Scientific Officer, Grade 1, Defence Research Laboratories, Department of Supply and Development, Australia.

Jones, Cyril Ernest, B.Sc., Senior Science Master, Newport (St. Julians) High School, Monmouthshire.

Josephs, Ruben, B.Sc., Physicist, Parsons and Marine Engine Turbine Research Association, Wallsend.

*Kent, Antony John, B.Sc., Research Physicist, B.X. Plastics Ltd., Maningtree.
Loudon, Alexander George, B.Sc., Scientific Officer, Building Research Station, Garston, Watford.
Lyon, Kenneth William, M.A., B.Sc., Senior Science and Physics Master, Wintringham Grammar School, Grimsby.
Major, Cyril Roy, B.Sc., Senior Science Tutor and Head of Science Department, Teachers' Training College, Alsagar.
Messenger, James Marshall, B.Sc., Superintendent of Technical Education, Kenya Colony.
*Moore, Arthur Cyril, M.A., Ph.D., Research Student in Physical Chemistry, University of Cambridge.
Moore, Jack, B.Sc., Design Engineer, Department of Atomic Energy, Lancs.
Perrott, David Alexander, M.A., Lecturer in Physics, Aston Technical College, Birmingham.
Randall, William Albert Douglas, B.Sc., Assistant Engineer, Westinghouse Brake and Signal Co. Ltd., Chippenham.
Roberts, Peter William, B.Sc., Assistant Lecturer, Physics Department, St. Mary's Hospital Medical School, London.
*Thompson, Alec Geoffrey, B.Sc., Research Physicist, Tootal Broadhurst Lee Co. Ltd., Manchester.
*Walford, John Graham, B.Sc., Scientific Officer, British Iron and Steel Research Association, London.
Whittaker, Erik James William, M.A., B.Sc., Departmental Manager, Organic and Physical Chemistry Department, Ferodo Ltd., Stockport.
Williams, David John, B.Sc., Research Physicist, Ericsson Telephones Ltd., Beeston.

*Graduates*

Austin, Bruce Maxwell, B.Sc., Research Officer, Lamp Development Laboratory, Claude Neon, Ltd., Australia.
Caplehorn, Wallace Ferrice, M.Sc., Major, Aust. Staff Corps, Australia.
Carman, Eric Houston, B.Sc., Part-time Demonstrator, Physics Department, University of Melbourne, Australia.
Curtis, Gordon Albert, B.Sc., Research Assistant, British Insulated Callender's Cables Ltd., Cheshire.
Digby, Norma Gladys, B.Sc., Physics Demonstrator, University of Melbourne, Australia.
Gare, Lloyd, B.A., B.Sc., Senior Science Master, Thebarton Boys' Technical School, Australia.
Gipps, Graham de Visne, B.Sc., Assistant Lecturer, Physics Department, University of Queensland, Australia.
Gubbay, Jacob Samuel, B.Sc., Research Officer, C.S.I.R.O. National Standards Laboratory, Australia.
Gum, Collin Stanley, B.Sc., Research Fellow, Commonwealth Observatory, Mount Stromlo, Australia.
Hayes, Kenneth William, B.Sc., Research Rubber Technologist, Monsanto Chemicals Ltd., Wrexham.
Holmes, John Winspere, B.Sc., Research Officer, Division of Soils, C.S.I.R.O., Australia.
Hones, Anthony James, M.Sc., Lecturer in Physics, Mid-Essex Technical College, Chelmsford.
Howarth, Michael Evelyn Frank, M.A., Physicist, Kodak Research Laboratories, Wealdstone, Middlesex.
Howe, Grevis John, B.Sc., Physicist, Australian Paper Manufacturers Ltd., Australia.
Lawrence, Robert, B.Sc., Scientific Officer, Grade 1, Defence Research Laboratories, Australia.
Lowenthal, Gerhard Claus, B.A., B.Sc., Scientific Officer, Grade 1, Defence Research Laboratories, Australia.
Martin, Pauline Mary, B.Sc., Research Assistant, Manchester Oil Refinery Ltd.
Martin, David James Reginald, B.Sc., Research Worker, British Scientific Instrument Research Association, Chislehurst.
Malcolmson, Richard Donald, B.Sc., Assistant Lecturer in Physics, University of Queensland, Australia.
McDonell, John Alexander, B.A., M.Sc., Senior Demonstrator in Physics, University of Melbourne, Australia.
Nicholas, John Francis, B.A., B.Sc., Research Officer, Division of Tribophysics, University of Melbourne, Australia.
Pringle, Derek Hair, B.Sc., Research Physicist, Ferranti Ltd., Crewe Toll, Edinburgh.
Sherwin, Reynold James Stewart, B.Sc., Teacher of Physics and Mathematics, Department of Public Instruction, Brisbane, Australia.
Windle, William, B.Sc., Research Physicist, English Clays, Lovering Pochin Co. Ltd., St. Austell.

*Subscribers*

Fraser, Donald Jehu, J. Stone and Co. Ltd.
Kakabadse, George Yura, Leeds.
Nichols, Clifford Albert, Leeds.

*Students*

Bennett, Monica, University College, London.
Blair, E. A., University of Western Australia.
Bolton, J. H., University of Western Australia.
Brown, J. A., University of Glasgow.
Cooper, A., University of Western Australia.
Cowan, I. R., West Ham Municipal College.
Forrest, G. D., University of Melbourne.
Gay, B., Battersea Polytechnic, London.
Gough, E. L., Salford Technical College.
Jarrett, J. W., University of Queensland.
Liddy, D. T., University of Adelaide.
McKenzie, A. B., Royal Technical College, Glasgow.
Parrott, E. A., Battersea Polytechnic, London.
Rapier, D. A., University of Manchester.
Reeves, E. A., University of Glasgow.
Troughton, M. E. C., University College, London.
Waters, N. E., University College, Hull.
Weiss, A. A., University of Adelaide.

## NEWS OF MEMBERS

*Honorary Fellow*

Sir Edward Appleton has been awarded the Albert Medal of the Royal Society of Arts for 1950.

*Fellows*

The following professional appointments have been notified:
F. E. Fincham—Head of the Ophthalmology Department, Institute of Ophthalmology (University of London).
S. K. K. Jatkar—Professor of Chemistry, University of Poona, India.

*Associates*

The following professional appointments have been notified:
J. Adam—Senior Scientific Officer, Atomic Energy Research Establishment, Harwell, Didcot, Berks.
A. M. Adams—Physicist, British Electricity Authority's Research Laboratories, Leatherhead.
K. W. Bridger—Physicist, Research Laboratories of the General Electric Company Ltd., Wembley.
G. G. Cannon—Research Phsyicist, Fundamental Research Section, British Nylon Spinners, Pontypool, Monmouthshire.
T. Emmerson—Director of Research, Guest, Keen and Nettlefold's Group of Companies.
J. S. Hutchison—Department of Physics, Royal Military College, Kingston, Ontario, Canada.
E. W. Jones—Physicist, Isotope Developments Ltd., Finsbury Pavement House, London.
J. Pritchard Jones—Physicist, Courtaulds Ltd., Coventry.
K. H. R. Wright—Scientific Officer, Mechanical Engineering Research Organization, Thorntonhall, Glasgow.

*Graduates*

The following professional appointments have been notified:
J. C. Bell—Physicist, Optics Department, Hilger Division of Hilger and Watts Ltd., London.
J. S. Hay—Meteorological Office, C.D.E.E., Salisbury, Wilts.

# APPOINTMENTS VACANT

**The inclusion of particulars of a vacancy must not be taken to imply that the Institute necessarily approves of the terms offered or that might be offered. Candidates should satisfy themselves that these are satisfactory, and they may always refer to the Institute for advice. A suggested form of contract under which a qualified physicist might reasonably be expected to serve is available on request.**

**Ministry of Supply** invites applications from **Electronic Engineers** or **Radio Physicists** for an unestablished appointment in the grade of **Scientific Officer** in London (Headquarters).

Candidates should have a good honours degree with experience in the design and development of radio test gear, radar, communications or navigation equipment.

Salary according to age, date of graduation, experience, etc., within the Scientific Officer range £400–£650 (men), £400–£525 (women). Post carries F.S.S.U. benefits.

Application forms obtainable from Ministry of Labour and National Service, Technical and Scientific Register (K), York House, Kingsway, W.C.2, quoting D.215/50-A. Closing date *August* 28, 1950.

**Ministry of Supply** invites applications from **Physicists** for unestablished appointment in the grade of **Scientific Officer** at an Experimental Establishment in South-West England.

Candidates should have a good honours degree in physics with experience in applied physical research. A practical outlook capable of tackling somewhat *ad hoc* problems is desirable and some knowledge of light engineering would be an advantage.

Salary according to age, date of graduation and experience, within range £380–£620 p.a. Rates for women somewhat lower. Posts carry F.S.S.U. benefits. Application forms obtainable from Ministry of Labour and National Service, Technical and Scientific Register (K), York House, Kingsway, W.C.2, quoting A 183/50A. Closing date *August* 24, 1950.

**Research Physicist** required by the Pneumoconiosis Research Unit of the Medical Research Council (laboratories at Llandough Hospital, near Cardiff) to work on the development of instruments for sampling airborne dusts, especially in coal-mines, and on the physical properties of dust particles at rest and moving in an air stream. A sound knowledge of physics and some workshop skill are necessary requirements. The appointment would be subject to a probationary period of one year after which establishment with F.S.S.U. provision would be envisaged. Starting salary within the range of £415–£740 according to age and experience. Further details on request to the Director, Pneumoconiosis Research Unit, Llandough Hospital, near Cardiff.

**Ferodo Limited** require a **Physicist** or **Engineer** to take charge of a Mechanical Sciences Department within a Technical Division. High academic qualifications are required, preferably to Ph.D. standard, combined with a sound practical outlook. The work is of great interest and requires the ability to direct research into academic and applied problems involving a knowledge of physics and engineering. A knowledge of friction and statistical methods would be added qualifications. The post offers excellent prospects, particularly for a candidate endowed with energy and initiative, and the commencing salary offered is within the range of £600–£1 200 per annum, according to qualifications and experience. Full details to the Personnel Manager, Messrs. Ferodo Ltd., Chapel-en-le-Frith, via Stockport.

**Elliott Brothers (London) Limited** have vacancies as Group Leaders in their Research Laboratories at Borehamwood for **Physicists** with 1st or 2nd Class Honours degrees and research experience. There are no fixed age limits but preference will be given to men between the ages of 27 and 35. Starting salary will be according to age and experience. If justified, four-figure salaries will be offered and preference will be given to men able to command such salaries. Advancement will not depend on vacancies in senior positions. A pension scheme is available.

Applications containing full details of qualifications, experience and age, should be sent to the Director, Research Laboratories of Elliott Brothers (London) Ltd., Elstree Way, Borehamwood, Herts.

**The British Boot, Shoe and Allied Trades Research Association** have vacancies for **non-graduate staff** in their physical and chemical laboratories. The work is interesting and varied. Specialised knowledge of footwear manufacture and materials is not expected, but laboratory experience is essential. Age preferably 21 to 28. Initial salary £250 to £400 according to experience and qualifications. Write, giving full particulars, to Director, Satra House, Rockingham Road, Kettering.

**Physicist** with research experience in the more classical parts of physics (applied mechanics, properties of matter, etc.) for work in the Spinning Department. Starting salary £550–£650 according to age and qualifications. Apply to the Director of Research, B.C.I.R.A., Shirley Institute, Didsbury, Manchester 20.

**Physicist** and **Physical Chemist** required for research work on boundary layers and semi-conductors for metal rectifiers. Research Laboratory in London. Applicants should have First or Second Class Honours degree. Salary according to qualifications and experience. Apply to Chief Development Engineer, Westinghouse Brake & Signal Co., Ltd., 82 York Way, King's Cross, N.1.

**Imperial Chemical Industries Limited,** Dyestuffs Division, wishes to enlist the services of three **Physicists** in their Research Department in Manchester. Two of the posts are for the development of physical techniques and their application to organic chemical investigations and the third post is concerned with the development of fibre-forming polymers. Applicants should possess a good Honours degree in physics, should preferably have had some post-graduate research experience, either in the University or in industry, and should not exceed 28 years of age. The initial salary will depend upon age and experience. Please reply to Staff Department, Hexagon House, Blackley, Manchester, 9.

**Ministry of Supply** invites applications from **Electronic Engineers** and **Physicists** for unestablished appointments in the **Scientific Officer** and **Experimental Officer Classes** at the Royal Aircraft Establishment, Farnborough, particularly in the fields of Radio Communications, including microwave techniques, circuit design and measurements, servo mechanisms and measurement of flight parameters.

(1) **Scientific Officer Class.** Candidates must have a good honours degree in appropriate subject or equivalent qualifications. At least three years' post-graduate research experience required for senior posts. Grade and salary to be assessed according to age, date of graduation and experience within following ranges: Senior Scientific Officer (minimum age 26), £670–£860; Scientific Officer, £380–£620. Rates for women somewhat lower. Posts carry F.S.S.U. benefits.

(2) **Experimental Officer Class.** Minimum qualification is Higher School Certificate with mathematics or a Science subject as a principal subject, but candidates with other qualifications, such as Higher National Certificate in electronics or light electrical engineering, or a pass degree in physics, are invited to apply. Appropriate experience is required for Senior posts and would be an advantage for all appointments. Grade and salary to be assessed according to age, experience, etc., within following ranges: Senior Experimental Officer (minimum age 35), £705–£895; Experimental Officer (minimum age 28), £495–£645; Assistant Experimental Officer, £220–£460. Rates for women somewhat lower.

Application forms obtainable from Ministry of Labour and National Service, Technical and Scientific Register (K), York House, Kingsway, W.C.2, quoting D. 220/50—A. Closing date *September* 25, 1950.

**An important company in the Food Industry** requires a Senior Research Physicist: candidates should have a 1st or 2nd class Honours degree in Physics and a minimum of five years' research experience. Some experience of rheological problems would be an advantage. The position offers scope for advancement. Minimum salary £650 or higher according to experience and qualifications, together with a pension scheme. Applications stating age, qualifications and experience to Box No. A.V.7, The Institute of Physics, 47 Belgrave Square, London, S.W.1.

UNWIN BROTHERS LIMITED, WOKING AND LONDON